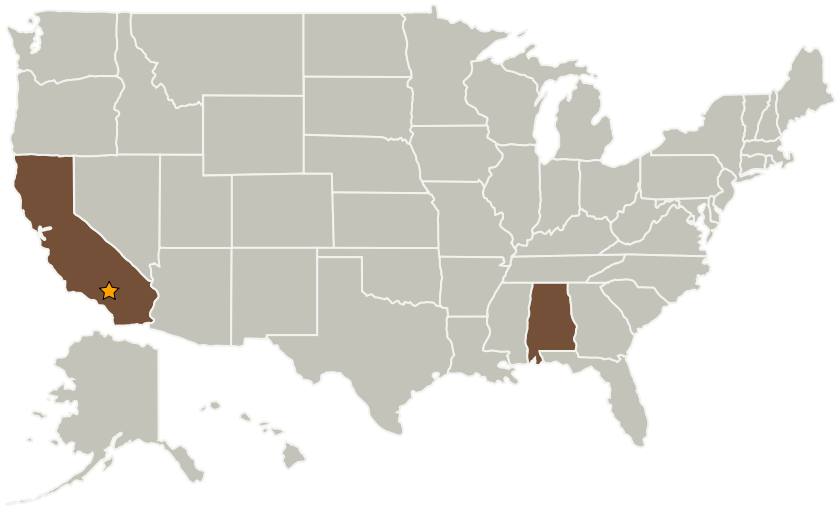
Advanced Ionic Liquid Monopropellant for Payload Ascent Vehicles, Phase I

Completed Technology Project (2009 - 2009)

Project Introduction

We propose to develop a monopropellant replacement for hydrazine using eutectic mixtures of ionic liquids (EILs). These liquids offer us the ability to tailor fluid and chemical properties, are safe to handle and burn cleanly. They also offer potentially higher performance as a monopropellant than hydrazine.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Armstrong Flight Research Center(AFRC)	Lead Organization	NASA Center	Edwards, California
Analytical Services, Inc.(ASI)	Supporting Organization	Industry Small Disadvantaged Business (SDB)	Huntsville, Alabama

Primary U.S. Work Locations	
Alabama	California

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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Armstrong Flight Research Center (AFRC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Technology Areas

Primary:

- TX11 Software, Modeling, Simulation, and Information Processing
  - TX11.6 Ground Computing
    - TX11.6.2 Automated Exascale Software Development Toolset